

Bibliography of Books, Theses, and Dissertations Mentioning a Metacrisis

By Evan Tabak Atlas

2026

A Metarevolutionary Manifesto

By Evan Tabak Atlas • 2024

“In recognition of what some have started to call a metacrisis, there is a growing need for a higher-order revolutionary framework—one which isomorphically matches the growing complexity of our interconnected crises. This book proposes that we must first be metarevolutionaries before we can be effective in the revolutionary domain, much less the political and social domains of our daily lives. So let us turn revolution upon itself and radically transform the underlying conditions of radical transformation. We will take on our metacrisis with a metarevolution, and also demonstrate metarevolutionary principles which will be applicable to any future metacrisis.”

“A metacrisis is a complex system whose elements are crises, and exhibits, as a unified whole, its own unique behaviors and properties beyond those found in its elemental crises.”

“Moreover, it is defined by a state-space that includes both actual and possible crises—where if a metacrisis was a musical instrument, it could simultaneously be emitting the sound of a chord, and have other chords which are silent but present. This means that, as a concept, a metacrisis is both temporal (the actual state of things right now) and atemporal (the constant qualities and possibilities).”

The Metaweb

The Next Level of the Internet

By Bridgit DAO • 2023

“We think of the Metacrisis as the underlying crisis driving a multitude of crises.”

Big Picture Perspectives on Planetary Flourishing

Metatheory for the Anthropocene Volume 1

Edited by Nicholas Hedlund, Sean Esbjörn-Hargens • 2022

“The deepening of the symptom-events of our complex, global crises has also revealed the arguable necessity of the notion of 'metacrisis' for adequately making sense of the world situation. Modern atomistic and mechanistic interventions targeting isolated symptoms of our crises tend to eventually deepen the problem or create new ones through their second-and third-order effects (e.g., superbugs and superpests). The world has now become so tangibly ridden with a barrage of worsening and overlapping problems that it has come to be more and more painfully obvious that the major crises of the twenty-first century cannot be addressed through a late modern gaze, which still deludedly views them as if they were closed-systemic, siloed, disciplinary challenges. However, they are in fact all open-systemic, recursively interdependent, and transdisciplinary fractals of the metacrisis as a whole.”

The Politics of Virtue

Post-Liberalism and the Human Future

By John Milbank, Adrian Pabst • 2016

“The book applies this conception of a politics of virtue to the economy, politics, culture and international relations. Throughout it involves a blend of political and social theory with

consideration of our current human predicament. Each of the five parts combines a critique of liberalism with post-liberal alternatives. The first part provides a novel account of the limits of liberal political thought and the shape of post-liberalism, while the second part turns to the metacrisis of capitalism and the civil economy alternative. In the third part, the shortcomings of liberal democracy are detailed and the mixed constitution alternative is proffered. The fourth part focuses on the metacrisis of liberal culture and ways in which we can renew a true culture of formation.”

Shifting Gears

Finding Security in a Changing World

By Nena O'Neill, George O'Neill · 1974

“When a society as a whole is in crisis, we are faced with what can be called a metacrisis.”

Divided Democracy

Cooperation and Conflict Between the President and Congress

By James A. Thurber · 1991

“In each historical era political actors and citizens held a widely shared and seemingly immutable core understanding of politics that gave order to the politics of the day. In the long run, however, the persistence of a collective epistemology and pursuit of immediate interests within it precipitated the crises that sabotaged the political equilibrium of each era. In the following section, I briefly sketch each era, giving a general sense of the way the dominant world view provoked metacrisis and reconstructive struggle.”

Essays in Self-destruction

Volume 1

By Edwin S. Shneidman · 1967

“Within the context of this concept of discernible psychosocial stages in the human life cycle, I would propose four ways of conceptualizing self-destruction, focussing on the role of crisis in its temporal relationship to the phases of life:

1. A crisis occurring within a phase of life: intra-temporal
2. A crisis occurring between phases of life: inter-temporal.
3. A crisis occurring out of phase with life: extra-temporal.
4. A metacrisis occurring independent of the phases of life: meta-temporal.”

Boston Studies in the Philosophy of Science

Volume 195

By D. Reidel Publishing Company • 1998

“That metacrisis is the ironic situation that today we are more aware than ever that we face an ecological crisis but less than ever inclined to modify our behavior to avoid it.”

Decadence

Radical Nostalgia, Narcissism, and Decline in the Seventies

By Jim Hougan · 1975

“A technically integrated society, a Gizmo culture, is one in which each element in the means of production and the modes of consumption is linked to and dependent upon every other element. Nothing is less than strategic. A fluctuation in one sector induces a variation in a second area, which, in its turn, generates disruption in a third... and so on. The process is a chain reaction of

crises leading to a prevailing metacrisis in which almost nothing works. In such circumstances, the Gizmo is effectively under ‘siege,’ as historian Arnold Toynbee has suggested... Our most probable future seems to be one of an ongoing metacrisis managed by an emerging power elite of technicians, terminating—as it must—in eventual technical collapse. Only a single mismanaged crisis is necessary to reduce the society to a chaos from which it cannot recover, and only the most mystical technophile believes in both the infallibility of the technicians and the panacea of ‘expertise.’”

Personal, Educational and Organizational Transformation:

Leading During Times of Metacrisis

By Judi Neal • 2023

“We live in a time of Metacrisis, an era in which several major crises occur at the same time.”

Lights Out:

Introduction to resource depletion, meta-crisis, and energy economics

By Mark Will • 2023

“Now, I believe climate change is a real deal, but it is just one piece of the global Metacrisis.”

True Human:

Reimagining Ourselves at the End of Our World

By Samantha Sweetwater • 2025

“We are in a metacrisis of compounding, mutually reinforcing mega-crises on ecological, economic, technological, geopolitical, and public health fronts, with significant short-, mid- and long-term existential risks posed by nuclear war, AI misalignment, synthetic biology, toxicity, ecological collapse, and epistemic meltdown, all of them predicated on and potentiated by the game dynamics of a system that requires continuous growth for its survival. We are increasingly, anxiously aware of the root misalignment between the incentives and structures of our civilizational operating system and the well-being of the biosphere.”

Seeking Shangri-La:

Awakening to the Metacrisis

By Tor Syvrud

The Dynamics of American politics:

approaches and interpretations

By Lawrence C. Dodd; Calvin C Jillson • 1994

“Macro context influences societal response to ontological change in two primary ways. First, macro context may magnify or minimize the learning tasks of a society. In other words, while the development of metacrises is inherent in the nature of human learning (that is, in the tendency of individuals, groups, and societies to hold to old beliefs until ontological change and crises force them to reassess beliefs), the severity of the metacrisis experience can be magnified or minimized by the nature of the societal context. Thus in societies whose economic and social problems are mild, and whose decision processes are relatively responsive, metacrises may be recognized quite straightforwardly as products of outmoded belief systems; in such societies,

the learning tasks of participants (as they seek to adjust old beliefs to new realities) will be relatively minimal.”

At the Edge of the Pit

By Miles Dobson • 1914

“The plane of State, military, and social conditions, in the United States, is the antithesis of a national metacrisis.”

The Social Welfare Forum

Author: Robert Theobald • 1972

“The classic story of the failure of a culture in the medium-run is that of the ‘saber-toothed tiger curriculum.’ The elders of a certain tribe continued to teach their young men how to deal with the threat posed by the saber-toothed tiger although the tiger was dying out and new threats to survival were emerging. The protests of the young were insufficient to change policy, and eventually the tribe died out. But our problem is not at the saber-toothed tiger level. We are in a crisis of crises, a METAcrisis. We do not need to know how to protect ourselves from different predators. Rather we need to develop new ways of thinking: we have to break out of the lose-lose and win-lose models within which we presently see the world and develop win-win models. In other words, we must cease to believe that we can only win when somebody else loses; we must learn to understand the possibility that both sides can gain from truly cooperative thinking and action.”

An Alternative Future for America's Third Century

By Robert Theobald • 1976

“Almost everyone has a different explanation for the 20% unemployment rate, the 35% inflation rate, the continuing 25% annual increase in crime, the breakdown of our local and national governments. (These are U.S. figures, of course, but they reflect worldwide realities.) Different groups concentrate on different symptoms of the overall situation—or metacrisis, as it is now called.”

The Revelation:

Alternative to Armageddon

By Barbara Marx Hubbard • 1983

“Einstein probed into the invisible processes of creation seeking the mind of God—how He thinks, how He works. He discovered that matter and energy are convertible and that in their conversion lies the power that fuels the material universe. He brought the power of co-creation and self-destruction into the hands of humans. He triggered the metacrisis and the metaopportunities which will transform the world from its terrestrial to universal phase of development.”

Happy Birth Day Planet Earth:

The Instant of Co-Operation

by Barbara Max Hubbard • 1986

“The awareness of our potential has already created capacities too great for Mother Earth to contain, thereby activating a planetary meta-crisis of limitation and over-complexity which

cannot be managed by science and democracy alone. The powers that led us to the meta-crisis are insufficient to overcome it. The meta-crisis created by science and democracy is forcing us to fuse the human intellect with spiritual intuition and to discover the evolutionary design as a guide for change.”

Billions of drops in millions of buckets:

Why philanthropy doesn't advance social progress

By [Steven H. Goldberg](#) • 2009

“Not only is there an insatiable demand for funds, but nonprofits now face a metacrisis in hiring fundraisers that has been described as a ‘fundraising frenzy,’ a ‘raging national crisis,’ and a ‘predatory environment’.”

Growing wings to overcome gravity:

Criticism as the pursuit of virtue

By [George A Panichas](#) • 1999

“In this postmodern stage of our civilization, thus, we live in a metacrisis (with all of its disordered symbolizations) in which liberal assumptions and demoniac ideological approaches reveal their utter depravity.”

Extraordinary Politics:

How protest and dissent are changing American democracy

By [Charles C Euchner](#) • 1996

“The political scientist Lawrence C. Dodd has written of a basic transformation in the orientation of politics that transcends the familiar swings of politics from liberal to conservative and back again. The need to ‘reimagine’ politics stems from a gap between the ontology of the world (the way things actually work) and the epistemology of the world (the way people understand the world). A ‘metacrisis’ develops, Dodd argued, when the world changes so fast that dominant paradigms no longer fit with the real needs and concerns of politics. Individuals and groups perceive that what makes sense for them does not fit with the rules and norms necessary for a well-ordered polity.”

The Social Welfare Forum

By National Conference on Social Welfare • 1972

“The classic story of the failure of a culture in the medium-run is that of the ‘saber-toothed tiger curriculum.’ The elders of a certain tribe continued to teach their young men how to deal with the threat posed by the saber-toothed tiger although the tiger was dying out and new threats to survival were emerging. The protests of the young were insufficient to change policy, and eventually the tribe died out. But our problem is not at the saber-toothed tiger level. We are in a crisis of crises, a METAcrisis. We do not need to know how to protect ourselves from different predators. Rather we need to develop new ways of thinking: we have to break out of the lose-lose and win-lose models within which we presently see the world and develop win-win models. In other words, we must cease to believe that we can only win when somebody else loses; we must learn to understand the possibility that both sides can gain from truly cooperative thinking and action.”

Sociological Footprints:

Introductory readings in sociology

By Leonard Cargan; Jeanne H Ballantine • 1985

“To understand the current metacrisis, evolutionary futurism reaches back into the far distant past, to the origin of the physical universe, and studies recurrent patterns of transformation. This perspective reveals that nature develops through an evolutionary spiral to ever more complex whole systems, from molecules to cells to multicellular organisms to early humans and now to us.”

City planning for health and sustainable development

By World Health Organization • 1997

“It is argued that the move towards the notion of sustainable development arises from a meta-crisis facing the world. This meta-crisis comprises a set of three core crises of development, environment and security.”

The Neoliberal Deluge:

Hurricane Katrina, late capitalism, and the remaking of New Orleans

By Cedric Johnson • 2011

“Fourth, we examine how media coverage helped generate reflection on crisis, provoking what we call a ‘meta-crisis’ in which established narratives of crisis were themselves thrown into crisis.”

The Philosophical Salon:

Speculations, Reflections, Interventions

By Michael Marder and Patricia Vieira • 2017

“And since in theory and practice liberalism goes against the grain of humanity and the universe we inhabit, we are facing not merely a cyclical crisis (linked, for example, to economic boom and bust or the decline of representative government), nor even just a systemic crisis of capitalism and democracy, but rather a meta-crisis. The meta-crisis of liberalism is the tendency at once to abstract from reality and to reduce everything to its bare materiality, leaving an irreducible aporia between human will and artifice, on the one hand, and unalterable laws of nature and history, on the other.”

Contesting Cosmopolitan Europe:

Euroscepticism, Crisis and Borders

By James Foley and Umut Korkut • 2022

“The multiple increasing, intersecting, and seemingly never-ending crises facing Europe and the world all conspire to create, or rather, to reveal, a meta-crisis of identity. To address the unfolding crises, a different kind of inquiry needs to take place—a deeper, interdisciplinary analysis of the psychology of identity and how the narrative of Europe is affected by the human rights of Europeans and non-Europeans in a way that ultimately creates a measurement of human value reliant on membership of an ‘ingroup’.”

The Politics and Ethics of Transhumanism:

Techno-Human Evolution and Advanced Capitalism

By Alexander Thomas • 2024

“Despite the ‘monster pliancy’ of capitalism, it has reached a stage of proliferating crises that extends beyond the economic into the social and environmental realms. Whether this is framed

as a polycrisis (Morin, 1999), metacrisis (Schmachtenberger, 2023) or permacrisis (Collins, 2022), the entrenched political instability, spiralling environmental catastrophe and its potential knock-on effects, the ingrained economic precarity, the epistemological crisis creating a conspiracy epidemic leading to heightened social polarity, the related threat of the rise of AI, ongoing war, the aftermath of the global pandemic, together these factors create a prevailing sense of epochal anxiety.”

Infected Empires:

Decolonizing Zombies

By PATRICIA SALDARRIAGA; EMY MANINI • 2022

“For Horn, the coming metacrisis will not be produced by a single event or in a single place but will be the product of ‘the sheer perpetuation of current policies, lifestyles, and modes of managing the future.’ Therefore, the visualized disasters of our collective imaginary (in popular culture) give us space to contemplate disasters that are overwhelming in their totality and yet are necessary in order to navigate the future, examine the anxieties and expectations, and understand the ideologies that carry us forward.”

Capitalism's New Clothes:

Enterprise, Ethics and Enjoyment in Times of Crisis

By Colin Cremin • 2011

“Events such as floods, heatwaves, hurricanes and droughts are spectacular signifiers of the metacrisis of ecology, more hyper-real than real, with the culture of crisis industry providing the action figure equivalents to spellbound consumers.”

Beyond the Meme:

Development and Structure in Cultural Evolution

By ALAN C. LOVE and WILLIAM C. WIMSATT • 2019

“Not least, a mounting scale and frequency of societal and environmental crises—a ‘metacrisis’ (Lane and van der Leeuw 2011)—has made the limits of our understanding and our control over society and the global environment simultaneously more obvious and threatening. In the wake of this metacrisis, which was neither predicted nor hindered by our current understanding, there is a widespread sentiment that we must broaden the range of factors we think affect the direction of society: from the primacy of economic values to an inclusion of societal and environmental values; from a reductionist view to a more holistic and inclusive view. Although there is no consensus about what this really means or entails, most now agree that society is highly complex, and we must attend to its complexity much more explicitly.”

Christian Socialism:

The Promise of an Almost Forgotten Tradition

By Philip Turner • 2020

“The basic assumption of the present age—that we are first of all autonomous individuals—has created what Milbank and his coauthor Adrian Pabst call a ‘metacrisis’ in the way we view ourselves as social agents, the way in which we are governed, the way in which our economy works, and the way in which our culture does or does not provide a basis for human flourishing. This attack is accompanied by an extensive and positive account of the ways in which Christian Socialism offers a path forward for Western society and its inhabitants. In presenting this alternative, Milbank acknowledges the pathos of his proposals, but at the same time notes that what he calls the ‘metacrisis’ of liberalism makes room for the very real promise of a society built

not upon competitive individualism but upon the communal character of human nature and a cooperative social vision.”

Universifying:

A Theory, Model & Practice to Birth Our Emerging World Through The Meta-Crisis

By Fionn Wright • 2023

“Humans are facing a convergence of global crises — global pandemics, climate change, technological Cold War, economic breakdown, fake news, pollution, deforestation, mental health epidemics, inequality, poverty, species extinction — the list goes on. We are witnessing the unfolding of a meta-crisis (Norgaard, 2022; Rowson, 2021; Johnson, 2020) on planet earth. The novel solutions we create lead to new challenges which require a more complex order of consciousness to solve, with exponentially increasing complexity as we create existential problems for ourselves to match the level of our development.”

Introduction to landscape design

By John L. Motloch • 1990

“There are myriad expressions of this crisis, including environmental degradation, water and energy crises, homelessness, high crime and suicide rates, inadequate health care, and an almost infinite number of other maladies. These crises are all interrelated and are the multifaceted expressions of a single underlying and pervasive inability to sustain the physical and social structures that we create. Our inappropriate paradigm is the underlying cause of these crises and, like the hurricane that spawns a multitude of tornados, it can be understood as the metacrisis that creates the conditions within which these other crises develop, and which thereby drives them.”

Conscious evolution:

Personal and planetary transformation

By Barry McWaters • 1981

“The challenge we face today is immense— almost overwhelmingly so. Two contrasting vistas present themselves. We are aware at this point in evolutionary history of a great distress upon and within Gaia, a metacrisis, and at the same time, we are aware of a great possibility, a metapotential.”

The Post Automation Era:

Toward A World That Works For Everyone

by Michael Silverton • 2024

“From the perspective of the ancient wisdom ‘where there is no vision, the people perish,’ what is the way up from this rock bottom metacrisis? The fact that there are no easily Tik-Tok-able answers to the question does not absolve us from seeking a suite of solutions as subtle, multivariate, and effectual as the complexities of metacrisis themselves.”

The Earthscan reader in sustainable development

By Kirkby; O'Keefe; Timberlake • 1995

“The acceptance of sustainable development as a basic aim for the world may also be explained by the perception, from the late 1960s, that the world is facing a meta-crisis, including crises of development, environment and security.”

Transformation Literacy:

Pathways to Regenerative Civilizations

By Petra Kiinkel and Kristin Vala Ragnarsdottir • 2022

“It has become increasingly clear that the twentieth-century civilization behaviour, which has been extended to the twenty-first century, has caused a meta-crisis and can no longer continue the way it is currently operating. A new modernity must emerge that we can call an emerging regenerative civilization or meta-modernity, in which a narrative of systemic health as much as individual and collective vitality in a thriving natural environment needs to guide the interaction of socio-economic—ecological systems.”

The Insistence of Art:

Philosophy and Aesthetics after Early Modernity

By Paul A. Kottman • 2016

“In one sense, allegory is always a response to a crisis of reading, a crisis about the literal meaning of the text. But the Renaissance also precipitated a meta-crisis of allegory, understood as the strategy for negotiating or resolving the crisis of literal reading.”

The Anthropology of pre-capitalist societies

By Joel S. Kahn and Josep R. Llobera • 1981

“When avowed Popperians and perennial critics of radical anthropology acknowledge, like Jarvie, that a definite crisis exists (nevertheless resisting pessimism and radicalism) or admit, as does Kaplan, that anthropology would be impoverished without a radical perspective (yet

labelling its contemporary representatives narcissists and solipsists), we may be in for a meta-crisis: establishmentarians may institutionalise and legitimise critical anthropology.”

The critic as conservator:

Essays in literature, society, and culture

By George A Panichas • 1992

“What we find in so much of contemporary literature is an art of disjunction, even as some writers will freely admit. But however sincere such an admission may be, it does very little for the vigorous restoration and conservation of the ennobling concepts of both a moral vision and a tragic sense. This is what makes the present crisis of civilization so overwhelming in its nihilistic stasis; what, in fact, makes it a meta-crisis and all that that extending and inclusive and ominous prefix means in terms of a brutalizing abridgement of the human prospect. We need hardly be reminded, those of us who have been thrown into the twentieth century and have witnessed its epochal upheavals and experienced its spiritual wars and disasters, that the frantic search for strange gods has gone far beyond the stage of apostasy. Nihilism, which is now our yoke of bondage and our damnation, scorns the past, neutralizes the present, contravenes the future. No promise of greatness can possibly emerge from such a predicament that is, ironically, no longer a predicament!”

The ecstatic adventure

By Ralph Metzner • 1968

“When I began to feel intense anxiety, I immediately asked what it meant. Naturally it signaled a serious mental disturbance, an anxiety neurosis, perhaps the beginning of a psychotic episode. From this thought greater anxiety, greater certainty of the seriousness of the panic. ‘Surely this

is psychosis.' One writer has called this 'meta-crisis,' the intensification of psychiatric disturbance which labeling it can create."

The global information society

By William J Martin • 1995

"Recognition of the meta-crisis caused by the break-up of an old order based on East-West confrontation and the emergence of a new order full of threats and uncertainties."

Systems thinking made simple:

New hope for solving wicked problems

By Derek Cabrera • 2015

"At the conclusion of the study, we found ourselves wondering: Is there a 'meta-crisis' that lies at the root of these varied crises or wicked problems? Yes. The root crisis is our thinking."

Glass jaw:

A manifesto for defending fragile reputations in an age of instant scandal

By Eric Dezenhall • 2014

"Controversies are not isolated matters of actions and reactions. In the Fiasco Vortex, the reaction becomes part of the action; the self-amplifying meta-crisis cannot be separated from the crisis because the media analysis feeds it. Punditry creates a media greenhouse effect that intensifies the scandal."

The battle for barrels:

Peak oil myths & world oil futures

By Duncan Clarke • 2007

“Will this new dogma concerning the social drama associated with Peak Oil be confounded by societal adaptation, the power of economic paradigm shift, or geological and managerial imagination—or will world oil reserves remain static and deplete inexorably, so that a meta-crisis will envelope all?”

Exploring the Relationship Between Transcendent States of Consciousness, Synchronicity Experience Awareness, and Meaning in Life

By Gordon Robert Montgomery • 2025

“Philosophical theoreticians (McGilchrist, 2009; Rowson, 2017; Schmachtenberger, 2019; Vervaeke, 2019) now refer to the profound shift impacting our conscious understanding of MIL by the term metacrisis, highlighting the need for a new holistic paradigm to address a meaningful convergence of interconnected civilizational crises and their underlying psychospiritual drivers.”

The Just and Loving Gaze of God with Us:

Paul's Apocalyptic, Political Theology

By Henry Walter Spaulding III • 2018

“Lowe acknowledges that the positive power of liberalism is reflected in Rawls’s understanding. However, this same liberalism comes with a ‘negative power to seize, capture, occupy and subjugate.’ The power of the sovereign guarantees that the social contract possesses the power

to do violence beyond its prescribed purpose. This forms the ‘metacrisis of liberalism,’ which, due to the problems inherent to liberalism and abuses of liberalism, ‘cannot be transcended, whether for good or ill, in a purely liberal way.’ In other words, liberalism cannot solve the problems of liberalism.”

Reimagining Sustainability Leadership For This Historical Moment

By Justin Robinson • 2018

“For this and other reasons, we face not just a crisis, but a ‘metacrisis’—a leviathan of complex, multidimensional, interlocking forces—constituting a crucible that our species may not survive, and most assuredly will not survive in its current embodiment (Hedlund, Esbjörn-Hargens, Hartwig, & Bhaskar, 2016).”

Cultivating Resilience in the Anthropocene:

Evaluating a GSSW Ecological Justice Curriculum

By Windy Selig • 2025

“Some scholars characterize the current era as a time of global polycrisis (Heinberg & Miller, 2023; Janzwood & Homer-Dixon, 2022) or metacrisis (Hedlund, 2021). Global polycrisis has been defined as ‘any combination of three or more interacting systemic risks with the potential to cause a cascading, runaway failure of Earth’s natural and social systems that irreversibly and catastrophically degrades humanity’s prospects’ (Janzwood & Homer-Dixon, 2022)... Metacrisis and polycrisis both approach interconnected global challenges through a systems-thinking perspective. However, metacrisis delves deeper into social and emotional dimensions of these crises, how they affect both individual and collective psyches, our capacity for meaningful living,

and the emergence of unforeseen outcomes (Hedlund, 2021). The term metacrises overlaps with polycrises because it recognizes spiritual, ethical, and epistemic crises (Hedlund, 2021).”

Breaking Together:

A freedom-loving response to collapse

By Jem Bendell • 2023

“This kind of ‘worldview defence’ can creep in under the proverbial radar, through what psychologists call ‘implicative denial’. This happens when we acknowledge information but don’t change appropriately in response. I believe that is why some experts prefer to describe societies as facing something generically worrying, which they name as megathreats, polycrisis, permacrisis, multicrisis, or metacrisis.”

Qu'appelle-t-on panser?

By Bernard Stiegler • 2018

“Ainsi se projette dans un rapport critique entre littérature et science physique devenue thermodynamique et probabiliste non seulement théoriquement, mais réellement et ordinairement – c’est-à-dire comme révolution industrielle, capitalisme computationnel dit « cognitif » et destin de l’homme ordinaire devenu extraordinairement moyen, si l’on peut dire –, ainsi se projette et s’établit, un siècle avant l’avènement des exorganismes planétaires monopolistiques et technosphériques, cette métacrise de la métaphysique qui prépare évidemment ce devenir immensément régressif où la pansée postnietzschéenne aura tant de difficulté en fin de compte à se situer. Dans cette métacrise, dont nous tenterons d’entendre la raison pour laquelle Heidegger la décrit comme la « fin de l’histoire de l’être », et, conséquemment, comme la « fin de la philosophie » dans l’ère cybernétique, et, en

conséquence, comme nouvelle tâche de la pensée, l'histoire franchit un seuil critique – le nouveau déterminisme y inscrivant le destin thermodynamique – en rencontrant la double tendance qui tend ce destin entre organisation, c'est-à-dire ordre, et désordre, c'est-à-dire décomposition et entropie.”

The Anti-Catastrophe League:

The Pioneers and Visionaries on a Quest to Save the World

By Tom Ough • 2025

“In the field of catastrophic risk and existential risk, there is often gloom about humanity's future. ‘What's your p(doom)?’ goes the common question. What that question means is: ‘What probability do you put on humanity being wiped out in the next century or so?’† The natural tendency of the metacrisis is to drive our p(doom) upward, but the protagonists of this book are trying to push that number back down.”

The Insistence of Art:

Philosophy and Aesthetics after Early Modernity

By Paul A. Kottman • 2016

“In one sense, allegory is always a response to a crisis of reading, a crisis about the literal meaning of the text. But the Renaissance also precipitated a meta-crisis of allegory, understood as the strategy for negotiating or resolving the crisis of literal reading.”

Die globale Metakrise aus dem Blickwinkel der Chemie:

Vorschläge für Seminare und Projektarbeiten

By Volker Wiskamp • 2021

“Die ökologische Krise ist nur ein Teil einer Metakrise, in der sich unsere Welt momentan befindet. Auch wenn wir kein Patentrezept haben, um diese zu überwinden, können bei jungen Menschen durch die in diesem Buch beschriebenen interdisziplinär ausgerichteten Seminare und Projektarbeiten, in denen chemische, andere naturwissenschaftliche, historische, philosophisch-ethische, politische und wirtschaftliche Aspekte zusammenfließen, Fachwissen vermittelt, ökologisches Bewusstsein geweckt und lokale und globale Lösungsansätze aufgezeigt werden.”

Deep Response:

An Emergency Education in Post-Consumer Praxis

By Tyler Disney • 2024

“Since you’re so obsessed with the various issues of the metacrisis, and since you spend your free time loading your brain with strategic theory, I’m not too worried that you’re going to drop yourself into a hole playing video games or inventing a better nerf gun.”

Le Loro Crisi, Le Nostre Soluzioni

By [Susan George](#) • 2010

“Malgrado le apparenze, la saga finanziaria sfociata nella mega-meta-crisi che il mondo sta ancora subendo non è particolarmente difficile da comprendere.”

Geschichte der Litteratur von ihren Anfang bis auf die neuesten Zeiten

By [Johann Gottfried Eichhorn](#) • 1805

“Unter der Voraussetzung , daß die Ursachen der Krankheiten , in dem Misverhältniß in den Gesäßten und den übrigen Theilen des menschlichen Köres , entweder in Erschlaffung oder Einschnürung oder einer Mischung von beiden zu suchen waren , setzte hierauf Asklepiades aus Prusa in Bithynien (ums J. 20 vor Chr .) eine eigene Methodik in der Behandlung der Kranken und legte den Grund zur methodischen Schule , die aber erst sein Schuler Themison aus Laodicea gehörig ausbildete , Thessalus von Tralles (A. Chr . 60) mit der Lehre von der Metakrise bereicherte , und Soranus aus Ephesus auf feste Grundsätze zurückführte . Die Grundsätze dieser Schule und ihrer Behandlungsart der Kranken kennt man fast bloß aus Auszügen ihrer Schriften , die sich in Aerzten finden , die sich der lateinischen Sprache bedienen haben , wie Musa (vor A.Chr . 14) und Caelius Aurelianus (lec 2 oder 3).

Die Schrift des Albertus de Zaccariis aus Bologna

Author: Albertus de Zaccariis, Manuel Morris • ~1300

“Denn besser ist zu schweigen, als sich zu irren, wie Galen im ersten (Buch) der Metacrisis im zwölften Kapitel beschrieben hat.”

¡AHORA!

El desafío más grande de la historia de la humanidad

By Aurélien Barrau • 2019

“Hoy nos enfrentamos a la metacrisis de hacer frente a nuestras antiguas categorías. La situación es científica y éticamente de una extraordinaria angustia: tenemos la ocasión —empujados por una necesidad vital— de inventar un Nuevo Mundo.”

Calamity Theory:

Three Critiques of Existential Risk

By Joshua Schuster and Derek Woods • 2021

“What Eva Horn writes about ‘today’s awareness of the future as catastrophe’ applies here as well: ‘We are dealing with a metacrisis composed of many interrelated factors, dispersed into a multitude of scenarios, and distributed among many different subsystems.’ Horn adds that these ‘metacrisis’ serve as staging platforms to make the future more legible and amenable to securitization and play out new norms of acceptable risk and reward.”

Chomskyan Linguistics and its Competitors

By Pius ten Hacken • 2007

“Since incommensurability between research programmes makes conclusive arguments impossible and the assumptions of a research programme are often passed on from one generation of scientists to the next, a number of linguists felt that the field was getting into a sort of ‘meta-crisis’. They were frustrated by the disregard in the dominant research programme of problems which, in their view, ought to cause a crisis.”

Climate, Psychology, and Change:

Reimagining Psychotherapy in an Era of Global Disruption and Climate Anxiety

By Steffi Bednarek • 2024

“We witness that the global metacrisis includes increased polarization, a destabilization of democracy, and a rise of authoritarianism on the world stage.”

Digital Capitalism and its Limits

By Vishwas Satgar • 2025

“The first consideration is the context of the global overshoot of energy and materials in our globalised economy, with an attending ‘meta-crisis’ consisting of geopolitical transition, a sixth extinction of biological species, climate change disruption, and so forth.”

Enacting a Public Theology

By Clive Pearson • 2019

“With the passage of time, the crisis has become a metacrisis – so argue John Milbank and Adrian Pabst in their *The Politics of Virtue* in the light of the explosion of self-interest and a hollowing out of the desire for the common good.”

El Colapso de la Modernización (Der Kollaps der Modernisierung)

By Robert Kurz • 2016

“La frase de la crisis de la sociedad del trabajo que circula hace tiempo, aunque pareciera hasta ahora una problemática particular y no se relacionaba en absoluto con las formas de la base social, podría haber nacido del presentimiento de esta metacrisis en plena maduración.”

Estado de Crisis

Zygmunt Bauman & Carlo Bordoni • 2014

“¿Para qué molestarse en devanarse los sesos tratando de responderse ‘¿qué hacer?’? si no tenemos respuesta para la pregunta ‘¿quién lo hará?’? Actualmente, estamos atravesando múltiples crisis, pero la más aguda de ellas—en realidad, una ‘metacrisis’ que hace que todas las demás sean prácticamente insolubles—es la ‘crisis de la agencia’ o, para ser más precisos, de la ‘agencia tal como la conocemos’, es decir, la agencia (heredada y actualmente existente) del Estado, probada y contrastada por generaciones anteriores que la crearon e instauraron y que esperaban que nosotros—sucesores recomendados suyos—la usáramos.”

Famine Worlds:

Life at the Edge of Suffering in Lebanon’s Great War

By Tylor Brand • 2023

“Like in any crisis, we can talk of the wartime famine as a cohesive event. However, that event was itself something of a ‘metacrisis’ in which thousands of individual stories played out. Each of those people experienced a slightly different war and a slightly different famine.”

Ethics in Action for Sustainable Development

By Jeffrey D. Sachs • 2022

“The threats to peace just mentioned have arisen within what could be termed a “meta-crisis” of the Modern Order: Modern democratic tenets—including guarantees of free and fair elections, the rights of minorities, freedom of the press, and the rule of law—have come under attack around the world, while on the economic front, the nine richest people today have more wealth than the bottom four billion... Exacerbating the political and economic dimensions of the meta-crisis of the Modern Order, there is today a meta-crisis of ‘truth’ within which the very notion of truth is contested and so-called fake news is tailored for selected audiences for either commercial or political gain.”

Geohell:

Imagining History in the Contemporary World

By Matthew Kenner • 2016

“All of the current megacrises shaping our metacrisis are such because they’re not only institutional, but are also systemic. By this I mean, they’re not only inherent to certain key social structures; the megacrises are, additionally, inherent to the holistic politicoeconomic system itself – to the social structure, as a whole. It’s a cultural crisis, something wrong with the way in which the contemporary dominant culture ‘naturally’ leads human beings to live their lives.”

Integral Theory and Transdisciplinary Action Research in Education

By Veronika Bohac Clarke & Justin Robinson • 2019

“For this and other reasons, we face not just a crisis, but a ‘metacrisis’—a rapidly evolving set of interlocking, planetary, multidimensional issues that exist on multiple time scales and pose deep existential and moral problems for the human species—constituting a crucible that humanity may not survive, and most assuredly will not survive in its current embodiment.”

Manual for the Awakening Warrior:

The Special Forces Secret Mind-Body-Spirit Training Program

Joel Levey & Michelle Levey • 2025

“The metacrisis we face in our world today makes it clear that old norms of business as usual are woefully inadequate, unsustainable, and unwise and are killing us in many ways. Things are heating up. The oceans are rising. Fragile unsustainable systems are collapsing. It’s time now to equip ourselves for this Earthwalk in wiser ways together. Never before in human history have the stakes been so high, the existential dangers so vast, the timeline for wise and effective response so urgent, or the need for wise, compassionate, courageous, and capable leadership and engagement so great.”

Philosophy.exe:

The Techno-Philosophical Toolkit for Modern Minds

By Matthias Muhlert • 2025

“Understanding the distinction between these two types of crises is essential because they necessitate different solution methods. Poly-crises often demand quick, targeted interventions that address the immediate symptoms of the crisis. For example, economic stimulus measures may temporarily alleviate a recession, but they do not solve the deeper issues that caused the economic downturn in the first place. Meta-crises, on the other hand, require systemic approaches that tackle the root causes, such as rethinking the underlying economic or technological frameworks.”

Policy Analysis:

A Practical Introduction

By David Bromell • 2024

“Economic historian Adam Tooze has popularised the word ‘polycrisis’ (coined by Edgar Morin in the 1970s) to describe interactions between disparate crises where the overall impact exceeds the sum of the parts. Another word for this is ‘permacrisis’, Collins Dictionary’s Word of the Year for 2022, used to describe ‘an extended period of instability and insecurity’. Some speak of ‘metacrisis’ to refer to multiple, interlocking global crises. Crisis (whether poly-, perma-, or meta-) is very likely to characterise the context in which you will find yourself doing policy analysis. You cannot escape dealing with uncertainty, complexity, and unpredictability.”

Post Capitalist Philanthropy:

Healing Wealth in the Time of Collapse

By Alnoor Ladha and Lynn Murphy • 2022

“The increasing monoculture of our physical environment and of our cognitive/spiritual capacities is quickening at such a pace that all living beings are implicated in the consequences of what is happening and what is to come. We can call this moment in history the meta-crisis, the poly-crisis, civilisational collapse, the great transition, the great unravelling, the Anthropocene, the Kali Yuga, or any other descriptor (some of these we will use interchangeably); however, its weight and directionality are clear. We are entering into an abyss of unknown consequences and unfathomable magnitude, driven by systems built upon human exceptionalism, callous extraction, selfish consumption, fearful racism, perpetual violence, soaring inequalities, authoritarian hierarchies, domination of all kinds and sheer absurdity.”

Psychedelic Experience:

New Models & Findings

By W. David Watts • 1971

“One writer has called this ‘metacrisis,’ the intensification of a psychiatric disturbance which labeling it can create.”

Just This!

Reweaving a World in Crisis

By Gary Horvitz • 2026

“The deepening political, ecological, spiritual and mental health crisis now threatening civilization is the bullet of separation. Dualism has brought us so many wounds that we now stand in a storm of distress, fear and delusion we call the meta-crisis.”

Post-Liberalism:

Recovering a Shared World

By Fred Dallmayr • 2019

“Discarding the notion of the ‘political/social animal’ (Aristotle, Aquinas) and the quest for human flourishing, modern liberalism—today in a state of ‘metacrisis’—replaced them with the self-centered ‘pursuit of wealth, power and pleasure’ which debases the nature of humanity.”

Postcolonial Disaster:

Narrating Catastrophe in the Twenty-First Century

By Pallavi Rastogi • 2020

“Thinking of disaster as a metacrisis risks situating the Third World, especially when filtered through the Western or Westernized gaze, as constantly being prone to catastrophe—a formulation reinforcing the outlandish ‘otherness’ of the postcolonial world.”

Spiritual Interrogations:

Culture, Gender, and Community in Early African American Women's Writing

By Katherine Clay Bassard • 1999

“In other words, given the unique historical pressures and the metacrisis of Middle Passage and displacement that I have sketched out in this book, what was ‘African American culture’ for?”

The Anthropocene:

Key Issues for the Humanities

By Eva Horn and Hannes Bergthaller • 2020

“While many other parameters could be added, the figure’s intention is clear: the authors describe the Anthropocene as a meta-crisis composed of a variety of coalescing indicators. These range from the rapid rise of industrialization, transportation, urbanization and globalization to a sharp climb in consumerism (first in the industrialized nations, and from the 1970s onward in major emerging economies), combined with massive population growth.”

The Octopus:

On Diversities, Art Production, Educational Models, and Curatorial Trajectories

By Başak Şenova / Johannes Jäger & Marcus Neustetter • 2024

“Despite deep and ongoing connections and intersections concerning inquiry and exploration in the arts and sciences, when it comes to exhibiting their work, the information is largely partitioned and taken out of its complex native and temporal context. The challenge created by ecological, economic, and political turmoil around the world—our current metacrisis—not only generates socio-cultural complexities, but also leads to a flurry of emergencies in both disciplines.”

Words and Worlds:

A Lexicon for Dark Times

By Veena Das & Didier Fassin • 2021

“But should we assume that all these crises have a common denominator, let alone a common determinant? Can their multiplication be reduced to a sort of metacrisis that would encompass the variety of specific crises discussed until now?”

Writing Ecofiction:

Navigating the Challenges of Environmental Narrative

By Kevan Manwaring • 2024

“What has also been termed the ‘meta-crisis’ shapes us all, whether we acknowledge its existence or not, impacting every aspect of the world we live in—and yet we can still choose, as writers, to formulate a narrative response to this to raise awareness, criticality, motivate, and empower.”

Why the World Needs Anthropologists

By Dan Podjed and Carla Guerrón Montero / Joana Breidenbach • 2020

“In the contemporary world, characterized by polycrisis or metacrisis, it is easy to despair and burn out.”

When Shadow Meets the Bodhisattva:

The Challenging Transformation of a Modern Guru

By Andrew Cohen & Hans Plasqui • 2023

“We are living in a pivotal moment in history. A series of interlocking crises in multiple domains of life have coalesced into one massive metacrisis.”

The Roots of the World:

The Remarkable Prescience of G. K. Chesterton

By Duncan Reyburn • 2025

“We live in an age of metacrisis, in the midst of a crisis of meaning. We find ourselves looking at not just one or two but many problems and concerns, at almost every level of life, at varying degrees of scale.”

Raising Anti-Doomers:

How to Bring Up Resilient Kids Through Climate Change and Tumultuous Times

By Ariella Cook-Shonkoff • 2025

“The metacrisis is an internal crisis of despair and delusion arising from what Scottish philosopher Jonathan Rowson calls ‘the spiritual and material exhaustion of modernity.’ Meta says things like: ‘I feel alone and hopeless’ and ‘What’s the point of doing anything?’ The metacrisis is the psychological response that stems from the felt sense of disconnect in response to the larger systemic dissonance and violence playing out globally.”

Goliath's Curse:

The History and Future of Societal Collapse

By Luke Kemp • 2025

“And those are just the present threats. Who knows what new hazards rapid technological change could conjure in the coming decades. The confluence of these different threats has led some to call our current predicament the ‘metacrisis’, ‘the precipice’, or a ‘global polycrisis’.”

A Complex Integral Realist Perspective:

Towards A New Axial Vision

By Paul Marshall • 2016

“The consequences of such an unhealthy imbalance of thought, which developed in recursive interplay with the other major dimensions of reality (the four planes or quadrants), are seen in the multiple crises (or interconnected ‘metacrisis’) that we face today.”

UTOK:

The Unified Theory of Knowledge

By Gregg Henriques • 2024

“Meta-Crisis: Refers to the current state of societal flux and change that potentially is going to result in global civilization collapse. UTOK divides the multiplicity of challenges into four broad domains, which include: 1) the techno-environmental crisis, which consists of both the damage we are doing to the planet and our capacity to damage the planet by technologies like nuclear weapons; 2) the digital-globalization crisis which refers to the processes by which digital-computational technologies are resulting in a rapid shift in media that threatens the basic institutional infra-structure, in addition to opening up massive new potentials; 3) the meaning crisis, which, stemming from the Enlightenment Gap, represents the failure to develop coherent philosophies for living in the 21st Century, and 4) the mental health crisis, which points

to higher levels of anxiety, depression, suicide and drug use than we have seen and is diagnostic of a failure of modern culture to evolve toward wise living.”

Gurdjieff for a Time Between Worlds:

Hyperpersonal Essays on the Grandfather of Metamodern Spirituality

By Layman Pascal • 2024

“The attitude of metabolizing the strangeness is necessary in order to profit from this period of history rather than simply take righteous action whose only result will be the destruction of lives, happiness and the leading-edge artifacts of public wisdom. Can we consciously assimilate the metacrisis? We better try.”

African Cosmic Complexity, Food Production, and the Situation of (Meta-)Polycrisis

By Mitchell-Ron Black • 2024

“Where we recognise this limit of the framework in which we are attempting to address the situation, we suggest a characterisation of Polycrisis as (Meta-)Polycrisis, thereby better representing the list of ‘multiple, macroregional, ecologically-embedded, and inexorably interconnected systems’ to include those systems supposedly able to address it, such as the knowledge production system, the political system, and the food system.”

The Meta-Crisis in Education:

Towards a Complex Integral Realist Theory of Education and Affective Axiological Orientation

By Andrew David Botham • 2024

“Theoretical exploration of the challenges faced by humanity at this moment in our history reveals that our current capacities as a species may be insufficient to effectively deal with the complexity of the challenges we face: a meta-crisis. This research argues that one of the dominant underlying causes of this meta-crisis is our perceptual separation between subject and object; mind and body; nature and nurture.”

Exploring Meta-Crisis in Zadie Smith's *White Teeth* (2000):

A Metamodernist study

By Chouk Braham Sabria • 2023

"Etymologically, meta-crisis is constituted from meta- and crisis. Cambridge dictionary defines meta as 'referring to itself or to something of its own type', thus it refers to a crisis of/about the crisis."

Metabolising Bigger-than-Self Distress through Nondual Enactive Wisdom Development:

A Layered Autoethnographical Study of Embodied Embedded Psychological Responses to Biospheric and Civilisational Crises

By Nicholas Clyde Laurence • 2022

"Bigger-than-self distress is defined as psychological distress that relates to what I describe as the biospheric-civilisational meta-crisis, which comprises a compounding and interlinked set of social and environmental issues, some of which pose time-bound existential threats to the stability of our civilisation and the biosphere's capacity to sustain it."

Communal Reverie:

Toward a Formulation of Imaginal Aperspectivity and the Integral Participatory Imagination

By Samuel C. Hinds • 2023

"Gebser's fundamental message with respect to the burgeoning state of world crisis is that it heralds the end of one world and the birth of another. The new world awaiting realization, if it is to be realized, will emerge in and through a mutation of consciousness. The fundamental structuration of experience characteristic of the modern mind, and the world space disclosed by its mental-rational mode of functioning, is to be superseded by the irruption of a new modality of experience and perception. For Gebser, the most meaningful response to the meta-crisis consists not in devising and crafting solutions

but is rather most evident in those individuals and collectives attempting the now immanent leap into the integral mode of being.”

Source Code Alchemy:

What, Why and How?

By Marianne Fitzgerald • 2025

“The importance of resolving the meta crisis is that if we don’t, we and other life on Planet Earth will die. The meta crisis is an existential threat to the human being and is caused by the human being. We have been driven to this brink by the way we have evolved as a species. It is a foundational crisis, not reducible to any single element. It is a reflection of deep issues within our worldview and core values. And as the only beings on this planet with the capacity to make the changes necessary to avert total annihilation, it is our responsibility to do something. This meta crisis is an existential threat and an opportunity for humanity to evolve how we think, relate and organize ourselves.”

Radical Middle:

Mitigating the Meta-crisis of Polarisation, Nonunderstanding and Intolerance as Products of Underlying Differences in Value(s)

By André Backlund • 2021

“Such conflict will be referred to as the meta-crisis, the increasing polarisation and subsequent inability to understand and tolerate individuals with values clashing against our own. In the on-going climate crisis this takes on the shape of immediate emergency or total denial of human cause, in the COVID-19 crisis of empathetic lockdown or dismissing it as a hoax, in the refugee crisis as opening our doors as widely as possible or trying to pull up the drawbridge.”

Innovation in Complex Adaptive Systems

By Petter Törnberg • 2014

“Our society is increasingly beset by a range of interrelated crises - with the financial crisis, the energy crisis, and the global warming crisis as leading examples - forming a ‘meta-crisis’ with its roots in processes deeply entrenched in society, and emanating from large-scale complex adaptive systems so strongly interlinked that they are hard to even define and delimit.”

Navigating Societal Complexity to Effectively Mitigate Deforestation in the Amazon:

Relating Systems Oriented Design to the Approach of Earth Innovation Institute

By Bjørn Rask Thomsen • 2024

“Humanity faces a poly-crisis, a global problematique—and a meta-crisis that relates to human behaviour and management and, hence, to how societies are led and governed. Over the centuries, layers of human-made design and cultures have accumulated hitherto unseen degrees of complexity of human constructs and beliefs. The inertia and vested interests of prevailing systems are immense.”

Meningsskapande i ett meningslöst arbetsliv:

En mix-metodstudie om hur arbetslivet påverkar meningsskapande och upplevelsen av meningslöshet

By Max Bergström & Melvin Ersson • 2024

“Meningslöshet i arbetslivet är relaterat till monotona eller onödiga arbetsuppgifter, låg autonomi och organisatoriska bekymmer. Studien visar på att meningsfullt arbete kan gynna den fysiska och psykiska välmående. Arbetsgivare bör tydligt kommunicera sina mål och bidragande till större syfte samt skapa en stödjande arbetsmiljö som erbjuder utvecklingsmöjligheter, för att stärka anställdas känsla av autonomi, betydelse och meningsfullhet. Slutsatserna tyder på att ökat fokus på meningsskapande kan fungera som lösning för att hantera problem som alienation och upplevd meningslöshet i arbetslivet, vilket i sin tur bidra till att bemöta en del av metakrisen.”

Reconnect:

Drafting an approach to ethical and regenerative urban design in response to the metacrisis

By Elias Luoto • 2023

“Unfortunately, the civilizational context of contemporary Western urban design is characterised by a series of deep and interconnected challenges that many argue have the capacity to lead civilization as we know it to a collapse. Recent systems thinking literature refers to this interconnected crisis as the metacrisis. The aim of this thesis is to form a holistic understanding of the metacrisis as it pertains to the context of contemporary urban design and to apply this understanding in drafting an ethical and regenerative approach to urban design in the 2nd quarter of the 21st century (2025-2050).”

Mothering Economy:

An Exploration of Mothering Principles to Help Build a World Beyond the Limitations of Twentieth Century Thinking

By Jenny Grettve • 2024

“That scale of impact has led to what many call a ‘planetary crisis’ or ‘metacrisis,’ which points to a deeper pattern that connects all risks and crises into a single coherent field. The Civilizational Research Institute (CRI) describes the metacrisis as ‘a higher order whole, with unique dynamics and unforeseen consequences. The metacrisis is both seen and unseen, taking place above and below the surface of what is visible and obvious.’ Many are now trying to grasp the complexity of these massive and interrelated problems, but also to find solutions at the same scale and impact... At first glance, what Raworth did might sound too simple in the midst of ‘serious’ economic solutions to our metacrisis, but with the outstanding global appreciation of the model, it becomes clear that the solutions we need can be showcased and talked about in uncomplicated ways.”